

CLAIMS

I claim:

1       1. A multi-axis installable and adjustable level,  
2 comprising:

3              a permanent attachment leaf having a plurality of attachment  
4 holes therethrough;

5              a level display leaf;

6              an omnidirectional level display disposed upon said level  
7 display leaf;

8              a plurality of coarse adjustment hinge lugs adjustably  
9 interconnecting said permanent attachment leaf to said level  
10 display leaf; and

11             a hinge bolt passing through said coarse adjustment hinge  
12 lugs and selectively locking said leaves immovably together.

1       2. The multi-axis installable and adjustable level  
2 according to claim 1, wherein said plurality of coarse adjustment  
3 hinge lugs of each said leaf further includes:

4              a plurality of mutually mating faces; and

5              a plurality of radially disposed hinge lug position locking  
6 teeth disposed upon each of said mating faces, locking said  
7 coarse adjustment hinge lugs immovably together when said hinge  
8 bolt is tightened.

1       3. The multi-axis installable and adjustable level  
2 according to claim 1, further including an infinitesimally and  
3 omnidirectionally adjustable level display mechanism disposed  
4 between said level display leaf and said omnidirectional level  
5 display.

1       4. The multi-axis installable and adjustable level  
2 according to claim 3, wherein said infinitesimally and  
3 omnidirectionally adjustable level display mechanism further  
4 comprises:

5           an omnidirectional level display mounting plate having a  
6 periphery with a plurality of level adjustment screw holes;

7           said level display leaf having a level display mounting  
8 plate seat with a plurality of threaded level display adjustment  
9 screw receptacles disposed therein, corresponding in number to  
10 said level display adjustment screw holes of said omnidirectional  
11 level display mounting plate;

12          a plurality of omnidirectional level display adjustment  
13 screws disposed through said level display adjustment screw holes  
14 of said omnidirectional level display mounting plate and said  
15 threaded level display adjustment screw receptacles of said level  
16 display leaf; and

17          a level display position-holding compression spring disposed  
18 between said level display leaf and said omnidirectional level  
19 display mounting plate.

1       5. The multi-axis installable and adjustable level  
2 according to claim 1, wherein said omnidirectional level display  
3 is a bull's eye level.

1       6. The multi-axis installable and adjustable level  
2 according to claim 1, wherein at least said permanent attachment  
3 leaf and said level display leaf are formed of materials selected  
4 from the group consisting of metal and plastic.

1       7. The multi-axis installable and adjustable level  
2 according to claim 1, wherein said attachment holes of said  
3 permanent attachment leaf comprise:

4             a single round fastener hole; and

5             two coarse adjustment mounting holes disposed upon a  
6 fastener circle defined by said single round fastener hole, with  
7 said coarse adjustment mounting holes comprising arcuate slots  
8 disposed upon said fastener circle and aligned therewith.

1       8.     The multi-axis installable and adjustable level  
2 according to claim 1, further including:

3       a pair of mutually opposed edges extending from said  
4 permanent attachment leaf, and normal thereto; and

5       a plurality of peripheral edges depending from said level  
6 display leaf, with one of said peripheral edges of said level  
7 display leaf contacting a respective one of said mutually opposed  
8 edges of said permanent attachment leaf when said permanent  
9 attachment leaf and said level display leaf are folded together,  
10 thereby placing each said leaf parallel to one another.

1       9.     The multi-axis installable and adjustable level  
2 according to claim 1, further including:

3       a stop block extending from said level display leaf; and  
4       an adjustable mechanical stop adjustably abutting said stop  
5 block and stopping further angular extension of said level  
6 display leaf when said mechanical stop is properly adjusted and  
7 said level display leaf is leveled.

1       10.     The multi-axis installable and adjustable level  
2 according to claim 1, further including:

3              a fixed alignment mark disposed upon said level display  
4 leaf; and

5              an adjustable alignment mark adjustably aligned with said  
6 fixed alignment mark and indicating proper angular extension of  
7 said level display leaf when said adjustable alignment mark is  
8 properly adjusted and said level display leaf is leveled.

1           11.     A multi-axis installable and adjustable level,  
2 comprising:

3                 a permanent attachment leaf having a plurality of attachment  
4 holes therethrough;

5                 a level display leaf extending from said permanent  
6 attachment leaf;

7                 an omnidirectional level display disposed upon said level  
8 display leaf; and

9                 an infinitesimally and omnidirectionally adjustable level  
10 display mechanism disposed between said level display leaf and  
11 said omnidirectional level display.

1           12.     The multi-axis installable and adjustable level  
2 according to claim 11, further including a plurality of coarse  
3 adjustment hinge lugs adjustably interconnecting each said leaf  
4 together; and

5                 a hinge bolt passing through said hinge lugs and selectively  
6 locking each said immovably together.

1           13. The multi-axis installable and adjustable level  
2 according to claim 12, wherein said plurality of coarse  
3 adjustment hinge lugs of each said leaf further includes:

4           a plurality of mutually mating faces; and

5           a plurality of radially disposed hinge lug position locking  
6 teeth disposed upon each of said mating faces, locking said  
7 coarse adjustment hinge lugs immovably together when said hinge  
8 bolt is tightened.

1       14. The multi-axis installable and adjustable level  
2 according to claim 11, wherein said infinitesimally and  
3 omnidirectionally adjustable level display mechanism further  
4 comprises:

5             an omnidirectional level display mounting plate having a  
6 periphery with a plurality of level adjustment screw holes;

7             said level display leaf having a level display mounting  
8 plate seat with a plurality of threaded level display adjustment  
9 screw receptacles disposed therein, corresponding in number to  
10 said level display adjustment screw holes of said omnidirectional  
11 level display mounting plate;

12            a plurality of omnidirectional level display adjustment  
13 screws disposed through said level display adjustment screw holes  
14 of said omnidirectional level display mounting plate and said  
15 threaded level display adjustment screw receptacles of said level  
16 display leaf; and

17            a level display position-holding compression spring disposed  
18 between said level display leaf and said omnidirectional level  
19 display mounting plate.

1       15. The multi-axis installable and adjustable level  
2 according to claim 11, wherein said omnidirectional level display  
3 is a bull's eye level.

1       16. The multi-axis installable and adjustable level  
2 according to claim 11, wherein at least said permanent attachment  
3 leaf and said level display leaf are formed of materials selected  
4 from the group consisting of metal and plastic.

1       17. The multi-axis installable and adjustable level  
2 according to claim 11, wherein said attachment holes of said  
3 permanent attachment leaf comprise:

4              a single round fastener hole; and

5              two coarse adjustment mounting holes disposed upon a  
6 fastener circle defined by said single round fastener hole, with  
7 said coarse adjustment mounting holes comprising arcuate slots  
8 disposed upon said fastener circle and aligned therewith.

1       18. The multi-axis installable and adjustable level  
2 according to claim 11, further including:

3              a pair of mutually opposed edges extending from said  
4 permanent attachment leaf, and normal thereto; and

5              a plurality of peripheral edges depending from said level  
6 display leaf, with one of said peripheral edges of said level  
7 display leaf contacting a respective one of said mutually opposed  
8 edges of said permanent attachment leaf when said permanent  
9 attachment leaf and said level display leaf are folded together,  
10 thereby placing each said leaf parallel to one another.

1       19. The multi-axis installable and adjustable level  
2 according to claim 11, further including:

3           a stop block extending from said level display leaf; and  
4           an adjustable mechanical stop adjustably abutting said stop  
5 block and stopping further angular extension of said level  
6 display leaf when said mechanical stop is properly adjusted and  
7 said level display leaf is leveled.

1       20. The multi-axis installable and adjustable level  
2 according to claim 11, further including:

3           a fixed alignment mark disposed upon said level display  
4 leaf; and  
5           an adjustable alignment mark adjustably aligned with said  
6 fixed alignment mark and indicating proper angular extension of  
7 said level display leaf when said adjustable alignment mark is  
8 properly adjusted and said level display leaf is leveled.